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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,231	07/22/2003	Guo Chun Su	STL11188.00	7567
7590	05/16/2006		EXAMINER [REDACTED]	NGUYEN, TUT
Mitchell McCarthy Seagate Technology LLC OKM270 10321 West Reno Oklahoma City, OK 73127-7140			ART UNIT 2877	PAPER NUMBER

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/624,231	SU ET AL.	
	Examiner	Art Unit	
	Tu T. Nguyen	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 20 is/are rejected.
 7) Claim(s) 1-19 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 22 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 07/22/2003.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The abstract of the application has more than 150 words.

Claim Objections

Claims 1-19 are objected to because of the following informalities:

Claims 1,16,18, the integer N should be defined, i.e. wherein N is an integer > 1.

Claims 2-15,17,19 are also objected as being depended on an objected claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chuang et al (6,105,240) in view of Zhu et al (6,977,791).

With respect to claim 20, Chuang discloses a controller for a data storage device assembly line (abstract). The controller comprises: a computer (column 15, lines 40-50), a measuring means (column 7, lines 5-15) for providing an optimum disc stack component configuration type (i.e. weighted shims, column 7, lines 39-42) that compensates for imbalance in a data storage (column 7, lines 37-42).

Chuang discloses a sensor for measuring imbalance of a disc stack (column 7, lines 14-25). However, Chuang does not explicitly disclose an optical measuring sensor. Zhu discloses an optical sensor for measuring movements of disks mechanically coupled to a spindle (fig 6; column 12, lines 3-6; column 13, lines 1-6, lines 25-30) and providing correction to minimize the imbalance of a disc stack (column 42, lines 48-67). It would have been obvious to modify Chuang with an optical sensor taught by Zhu to make the system more accurate. Although Zhu does not explicitly disclose measuring imbalance of the disc stack. However, it would have been obvious that the imbalance of the disc stack could be known by measuring movements of the discs relative to the spindle. Further, Zhu discloses a method for correcting the imbalance of a disc stack (column 41, lines 48-67). It would have been obvious that Zhu would have to measure the imbalance of the disc stack in order to provide a correction.

Allowable Subject Matter

Claims 1-19 are allowed.

As per claims 1,16,18, the prior arts of record, taken alone or in combination, fail to disclose or render obvious the steps of optically measuring one or more disc stack parameters, including disc stack component offsets for a most recent N disc stacks produced on an assembly line; calculating a moving average of the most recent N disc stack component offsets; utilizing the calculated averages to determine a desired component configuration type, in combination with the rest of the steps of the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu T. Nguyen
Primary Examiner
Art Unit 2877

05/13/2006